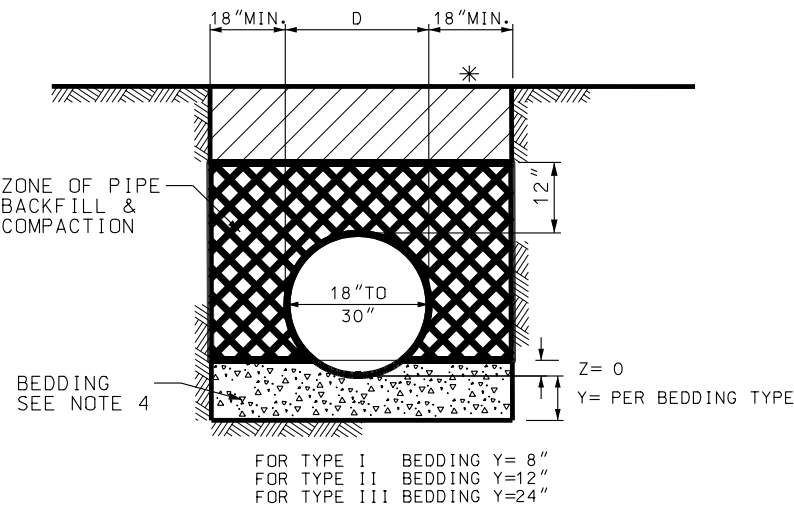
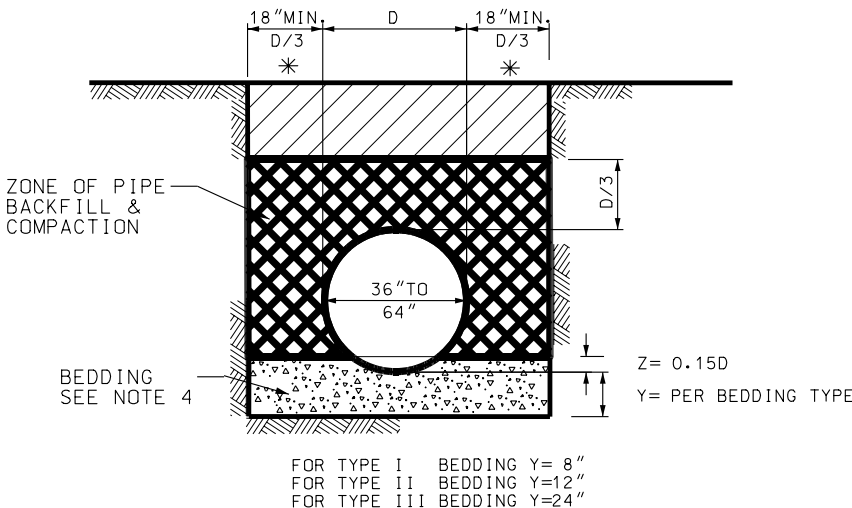


BACKFILL/ BEDDING REQUIREMENTS FOR PLASTIC PIPE,
METAL PIPE & PIPE ARCH CULVERTS



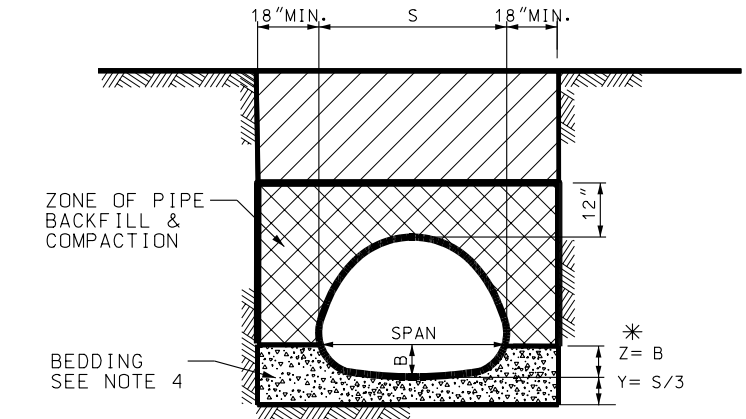
* INCREASE THIS DIMENSION TO D IF PIPE IS PLACED IN AN EMBANKMENT WITHOUT THE BENEFIT OF TRENCHING

DETAIL "A"
FOR CIRCULATOR PIPE
HAVING DIAMETERS LESS THAN 36"



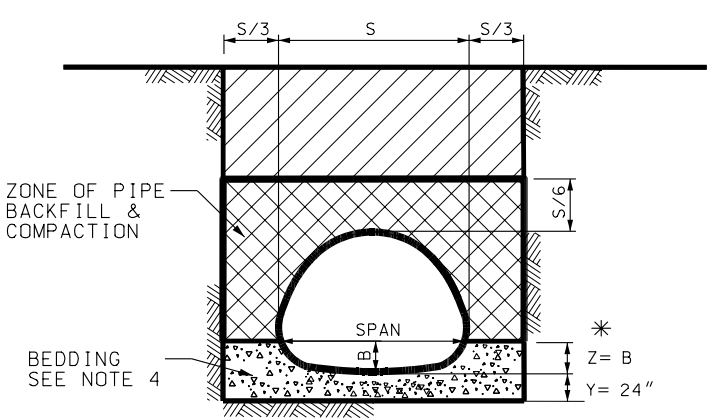
* INCREASE THIS DIMENSION TO D IF PIPE IS PLACED IN AN EMBANKMENT WITHOUT THE BENEFIT OF TRENCHING

DETAIL "C"
FOR CIRCULATOR PIPE
HAVING DIAMETERS BETWEEN 36" AND 72" INCLUSIVE



* Z = DEPTH OF BEDDING AT INVERT IS TO THE WIDEST POINT ON THE PIPE ARCH CULVERT.

DETAIL "B"
FOR ARCH PIPE
HAVING SPANS LESS THAN 72" INCLUSIVE



DETAIL "D"
FOR ARCH PIPE
HAVING SPANS OF 74" AND LARGER

LEGEND:



= USE ON SITE BEDDING MATERIAL OR GRANULAR BACKFILL BORROW (2" MAX.) AS REQ'D. (IN ACCORDANCE WITH THE TYPE OF BEDDINGS I, II OR III) MEETING THE FOLLOWING REQUIREMENTS:
A. ON-SITE MATERIAL EXCLUDING UNSTABLE SOIL AS DEFINED BELOW.
B. USE GRANULAR BACKFILL BORROW HAVING INTERMEDIATE FRACTIONS FROM NO.200 SIEVE TO 2" MAXIMUM MATERIAL.



= ZONE OF PIPE BACKFIL & COMPACTION. USE ON-SITE MATERIAL CONTAINING NO ROCK LARGER THEN 2" IN SIZE & FREE OF FROZEN LUMPS OR CLAY.

FLOWABLE FILL MAY BE USED FOR BACKFILL AND BEDDING.

NOTES:

1. PRECOMPACTION & COMPACTION: PER AASHTO T 99 WITH DENSITY NOT LESS THAN 96 PERCENT OF LABORATORY DENSITY.
2. BEDDING DETAIL AS SHOWN IS FOR USE WITH UDOT's STANDARD DRAWINGS DG 1, DG 2 & DG 3.
3. RECESS THE BEDDING TO RECEIVE CULVERT JOINTS WHERE APPLICABLE.
4. HAUNCH AREAS UNDER PIPE MUST BE IN FIRM AND INTIMATE CONTACT WITH THE ENTIRE BOTTOM SURFACE OF THE PIPE WITHOUT DISTURBING THE PIPE FROM SPECIFIED LINE AND GRADE.
5. THE WIDTH OF THE TRENCH BOX, OR OTHER SHIELD, MUST EXCEED THE REQUIRED WIDTH OF THE BACKFILL IN THE BEDDING AND BACKFILL ZONES.

TABLE 1

TYPE OF BEDDING	TYPE OF SOIL FOUNDATION	TYPE OF BEDDING MATERIAL
TYPE I	OTHER THAN ROCK OR UNSTABLE SOIL	ON-SITE MATERIAL TO BE PRECOMPACTED
TYPE II	ROCK	ON - SITE MATERIAL
TYPE III	UNSTABLE	GRANULAR BACKFILL BORROW (2" MAX.)

UNSTABLE SOILS = FOUNDATION CONSISTING OF ALL ORGANIC SOILS OR MATERIALS SUCH AS PEAT, MOSS & BOG, OR FINE GRAINED SOILS (SILTS OR CLAYS) AND UNCEMENTED SANDS WHOSE WATER CONTENT EXCEED THEIR LIQUID LIMIT, SUCH SOILS WILL REQUIRE THAT A "TYPE III" BEDDING BE USED.

UTAH DEPARTMENT OF TRANSPORTATION

STANDARD DRAWINGS FOR ROAD AND BRIDGE CONSTRUCTION

SALT LAKE CITY, UTAH

RECOMMENDED FOR APPROVAL

CHAIRMAN STANDARDS COMMITTEE

APPROVED

DEPUTY DIRECTOR

PLASTIC PIPE, METAL PIPE
OR PIPE ARCH
CULVERT BEDDING

STANDARD DRAWING TITLE

STD DWG

DG 5